



Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745



Title V Operating Permit

Permit No.: 136-97-TV (R1)

Plant ID: 0244

Effective Date: 6/1/2012

Expiration Date: 6/30/2017

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:


Brown Forman Distillery
2921 Dixie Highway
Louisville, KY 40216

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Application No. 36248
10976
30838

Application Received: 25 Jul 2005
6 Apr 2009
20 Jul 2011

Permit Writer: Rick Williams


Air Pollution Control Officer
April 27, 2012

Administratively Complete: 9/23/2005

Date of Public Notice: 3/4/2012

Date of Proposed Permit: 3/4/2012

Table of Contents

Permit Revision History	I
Abbreviations and Acronyms	2
Preamble.....	3
General Conditions	4
STAR Requirements	13
U ₁ – Grain Handling Operations	14
Applicable Regulations:	14
Emission Points:.....	14
Control Devices:.....	15
Allowable Emissions:.....	15
Additional Conditions	15
S1. Standards.....	15
S2. Monitoring and Recordkeeping	16
S3. Reporting.....	17
Comments	19
U _{1A} – Fermentation	20
Applicable Regulations:	20
Emission Points:.....	20
Control Devices:.....	20
Allowable Emissions:.....	20
Additional Conditions	21
S1. Standards.....	21
S2. Monitoring and Recordkeeping	21
S3. Reporting.....	22
Comments	23
U ₂ – Barrel Filling Operation	24
Applicable Regulations:	24
Emission Points:.....	24
Control Devices.....	24
Allowable Emissions:.....	24

Additional Conditions	24
S1. Standards.....	24
S2. Monitoring and Recordkeeping	25
S3. Reporting.....	26
Comments	27
U ₂ A – Barrel Dumping Operations.....	28
Applicable Regulations:	28
Emission Points:.....	28
Control Devices.....	28
Allowable Emissions:	29
Additional Conditions	29
S1. Standards.....	29
S2. Monitoring and Recordkeeping	30
S3. Reporting.....	31
Comments	32
U ₃ – By-Products Process and Handling	33
Applicable Regulations:	33
Emission Points:.....	33
Control Devices:.....	34
Allowable Emissions:	34
Additional Conditions	34
S1. Standards.....	34
S2. Monitoring and Recordkeeping	35
S3. Reporting.....	37
Comments	39
U ₄ - Power Generation	40
Applicable Regulations:	40
Control Devices:.....	40
Emission Points:.....	41
Allowable Emissions:	41
Additional Conditions	42
S1. Standards.....	42
S2. Monitoring and Recordkeeping	45
S3. Reporting.....	51
S4. Compliance Testing	54

Comments	56
U5 - Low-Alcohol Bottling Line	57
Applicable Regulations:	57
Emission Points:.....	57
Control Devices:.....	57
Allowable Emissions:.....	57
Additional Conditions	58
S1. Standards.....	58
S2. Monitoring and Recordkeeping	58
S3. Reporting.....	59
Comments	60
U6 – Barrel Storage and Aging Warehouse	61
Applicable Regulations:	61
Emission Points:.....	61
Control Devices.....	61
Allowable Emissions:.....	61
Additional Conditions	61
S1. Standards.....	61
S2. Monitoring and Recordkeeping	61
S3. Reporting.....	62
Comments	62
Permit Shield	63
Off-Permit Documents	63
Alternative Operating Scenario.....	63
Insignificant Activities.....	63

Permit Revision History

Title V Permit Revision History						
Revision	Issue Date	Public Notice Date	Type	Page #	Description	
Original	22 Jan 2001	24 Sept 2000	Initial	Entire Permit	Initial permit issuance	
R1	27 April 2012	4 March 2012	Renewal	Entire Permit	Title V renewal application, incorporating:	7/25/2005
					Title V renewal revisions and supplemental information	4/6/2009
					Title V renewal revisions and supplemental information	7/18/2011
					RO change	1/21/2004
					RO change	3/31/2005
					RO change	4/10/2007
					RO change	12/10/2009
					112(j) application, part 1	3/9/2009
					112(j) application, part 1, revised and part 2	2/15/2010
					Construction permit: Packed tower scrubber. 109-00-C	6/18/2000
					Construction permit: Brewery equipment. 43-02-C (Installed and subsequently removed)	2/28/2002
					Construction permit: Distiller's dry grain storage tank. 350-05-C	9/23/2005
					Construction permit renewal: Distiller's dry grain storage tank. 350-05-C	9/30/2006
					Construction permit: bin vent for DDG storage tank. 351-05-C	9/23/2005
					Construction permit renewal: bin vent for DDG storage tank. 351-05-C	9/30/2006
					Request to void permits 350-05-C and 351-05-C	1/3/2010
					Construction permit: Two 12,000 gallon and one 8000 gallon storage tank. 352-05-C	9/23/2005
					Construction permit renewal: Two 12,000 gallon and one 8000 gallon storage tank. 352-05-C	9/30/2006
					Construction permit: install one new 10,000 gallon tank and change in service for another. 189-06-C	7/31/2006
					Construction permit renewal: install one new 10,000 gallon tank and change in service for another. 189-06-C	7/31/2007
					Construction permit: Replace coal storage silo. 313-08-C	4/30/2008
					Construction permit renewal: Replace coal storage silo. 313-08-C	4/30/2009
					Construction permit: Replace 55 MMBtu/hr, gas-fired, low-NOx burner on Boiler #1 (E26). 314-08-C	4/30/2008
					Construction permit renewal: Replace 55 MMBtu/hr, gas-fired, low-NOx burner on Boiler #1 (E26). 314-08-C	4/30/2009
					Notice of removal of fuel oil storage tanks (E28) and oil burner on Boiler #2.	5/26/2010
					Coal combustion limit request letter	4/21/2011
					40 CFR 63, Subpart JJJJJ initial notification	9/7/2011

Abbreviations and Acronyms

AP42	- AP-42, <i>Compilation of Air Pollutant Emission Factors</i> , published by USEPA
APCD	- Louisville Metro Air Pollution Control District
BAC	- Background Ambient Concentration
bbl	- barrel, volume as defined in document text
Btu	- British thermal unit
bu	- bushel (of grain)
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
HCl	- Hydrogen chloride
Hg	- Mercury
hr	- hour
in.	- inches
lbs	- pounds
L	- liter
LMAPCD	- Louisville Metro Air Pollution Control District
mm _{Hg}	- millimeters of mercury column height
MM	- million
month	- a calendar month
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- pounds per square inch absolute
QA	- Quality Assurance
SIC	- Standard Industrial Classification
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- water column
yr	- year, or any 12 consecutive-month period, as determined by context

Preamble

Title V of the Clean Air Act Amendments of 1990 required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD or APCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations."

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit General Conditions define requirements that are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the general conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The General Conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The source's Title V permit may include a current table of "insignificant activities."

Insignificant activities are defined in District Regulation 2.16 section 1.23, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant activities identified in District Regulation 2.02, section 2 may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified in District Regulation 2.02, section 2 shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State, and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. (Regulation 2.16, sections 4.1.3, 4.1.13.1, and 4.1.13.7)
2. **Compliance Certification** - The owner or operator shall certify, annually or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification directly to the EPA at the following address as well as to the District, as set forth in Regulation 2.16, section 4.3.5.4:

*US EPA - Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-8960*
3. **Compliance Schedule** - A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:
 - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.
 - b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.
4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, it shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

- a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An emergency occurred and that the owner or operator can identify the cause of the emergency;
 - ii. The permitted facility was at the time being properly operated;
 - iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and
 - iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.
- c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. [Regulation 2.16, sections 4.7.1 through 4.7.4]

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 1.3. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. [Regulation 2.08, section 1.6]

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as "District Only Enforceable Conditions", all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. [Regulation 2.16, sections 4.2.1 and 4.2.2]

9. **Enforcement Action Defense**

- a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

- b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. [Regulation 2.16, sections 4.1.13.2 and 4.1.13.3]
10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.
11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit. [Regulation 2.16, section 4.1.13.6]
- If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA. [Regulation 2.07, section 10.2]
12. **Insignificant Activities** - The owner or operator shall:
- a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. [Regulation 2.16, section 5]
 - b. Submit a current list of insignificant activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of insignificant activities that occurred during the preceding year. [Regulation 2.16, section 4.3.5.3.6]
13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours:
- a. Enter the premises to inspect any emissions-related activity or records required in this permit.
 - b. Have access to and copy records required by this permit.
 - c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.
 - d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements. [Regulation 2.16, section 4.3.2]
14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be 1 January through 30 June and 1 July through 31 December of each calendar year. All reports shall be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a

single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement. All semi-annual compliance reports shall include the following certification statement, per Regulation 2.16, section 3.5.11.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete”.
- Signature and title of company responsible official.

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days following the date a change in the designated RO occurs for this facility.

The semi-annual compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 - June 30	August 29
July 1 - December 31	March 1 of the following year

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5. [Regulation 2.16, section 4.1.5]
16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.
17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.
18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.
19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.
20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. [Regulation 2.16, section 4.1.16]
22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.
23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.
24. **Permit Revocation and Termination by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:
 - a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment;
 - b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District;
 - c. Knowingly making any false statement in any permit application;
 - d. Noncompliance with Regulation 1.07, section 4.2; or
 - e. Noncompliance with KRS Chapter 77.
25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.
26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.
27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.
28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.
29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.
30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued, or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.
31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.
32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific

circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected. [Regulation 2.16, section 4.1.12]

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.
34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.
35. **Submittal of Reports, Data, Notifications, and Applications**
 - a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 may be submitted to:

*Louisville Metro Air Pollution Control District
850 Barret Ave
Louisville, KY 40204-1745*
 - b. Documents that are specifically required to be submitted to EPA, as set forth in Regulation 2.16 sections 3.3 and 5.8.5, shall be mailed to EPA at:

*US EPA - Region IV
APTMD - 12th floor
Atlanta Federal Center
61 Forsyth Street
Atlanta, GA 30303-3104*

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Provisions
1.02	Definitions
1.03	Abbreviations And Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring and Reporting
1.07	Emissions During Shutdowns, Malfunctions, Startups, and Emergencies
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application
2.02	Air Pollution Regulation Requirements and Minor Facility Exemptions
2.03	Permit Requirements - Non-Title V Construction and Operating Permits and Demolition/Renovation Permits
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.00	Standards for Toxic Air Contaminants and Hazardous air Pollutants, Definitions
5.01	Standards for Toxic Air Contaminants and Hazardous air Pollutants, General Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

- a. Any facility having any refrigeration equipment normally containing fifty (50) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added according to 40 CFR 82.166;
- b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;
- c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;
- d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

- e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;
- f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;
- g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. (Regulation 2.16, section 4.1.5)

STAR Requirements

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.01	General Provisions	1 through 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6

- a. The owner or operator shall submit with the notification of construction for any new emission unit the STAR EA Demonstration for all Category 1 through Category 4 TACs emitted from that emission unit.
- b. The owner or operator shall submit a *plant-wide* emissions-based EA Demonstration to the District showing compliance with the *plant-wide* EA goals of 7.5 for new and existing, 3.8 for all new combined, and 1.0 for each TAC from each process when a change occurs that increases emissions above *de minimis* or previously modeled values.
- c. If the TAC does not have an established BAC or *de minimis* value, the owner or operator shall calculate and report these values. The form located on the APCD website (<http://www.louisvilleky.gov>) may be used for determining BAC and *de minimis* values.

U1 – Grain Handling Operations

Applicable Regulations:

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.14	Control of Fugitive Particulate Emissions	1, 2, 8
6.09	Standards of Performance for Existing Process Operations	1, 2, 3, 5
7.08	Standards of Performance for New Process Operations	1, 2, 3

FEDERAL REGULATIONS	
Regulation	Title
40 CFR 64	Compliance Assurance Monitoring

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E1	Truck/Rail Receiving - all grain	1.14	Fugitive
E2a	Corn storage silo #1	6.09, 40 CFR 64	C1a
E2b	Corn storage silo #2	6.09, 40 CFR 64	C1b
E3	Grain cleaner	1.14	Fugitive
E3	Grain conveyors: receiving pit screw to shaker; 2 screws and one bucket elevator from shaker to receiving silos.	1.14	Fugitive
E3	Grain conveyors: Silo to mill (x2), elevator from mill to meal storage (x2), meal storage bin to weigh hopper (x3), weigh hopper to mash room (x3).	6.09, 40 CFR 64	C2
E4	Cage Mill (corn)	6.09, 40 CFR 64	C2
E5	[2] Internal Grain Storage Bins (corn)	7.08, 40 CFR 64	C2
E6	Weigh Hopper (corn)	6.09, 40 CFR 64	C2
E8a	Small Grain Storage Silo #1	6.09, 40 CFR 64	C3a
E8b	Small Grain Storage Silo #2	6.09, 40 CFR 64	C3b
E10	Cage Mill (small grain)	6.09, 40 CFR 64	C2
E11	[4] Internal Grain Storage Bins (2 malt and 2 rye)	7.08, 40 CFR 64	C2
E12	Weigh Hopper for yeast cooker	6.09, 40 CFR 64	C2
E12a	Weigh Hopper for malt slurry	6.09, 40 CFR 64	C2

Control Devices:

ID	Description	Performance Indicator	Range	Stack ID
C1a, C1b	Bin Vent Fabric Filter: DCE, Inc, model DLV4/7FI; $\varepsilon = 99.9\%$	VE Survey	< 20% Opacity	S1, S22
C2	Pulse Jet Fabric Filter: W.W.Sly, model STJ-78-10; $\varepsilon = 99.9\%$	VE Survey	< 20% Opacity	S2
C3a, C3b	Bin Vent Fabric Filter: DCE, Inc, model DLV4/7FI; $\varepsilon = 99.9\%$	VE Survey	< 20% Opacity	S3, S23

Allowable Emissions:

Regulated Air Pollutant	Standard/Limit
Particulate Matter	See Additional Condition S1.a.

Additional Conditions**S1. Standards**

[Regulation 2.16, section 4.1.1]

a. Particulate Matter

- i. The owner or operator shall not permit PM emissions from any affected facility, or any air pollution control equipment installed on any affected facility in excess of: (Comment 1)
 - 1) Emission point E2 – 38.2 lb/hr
 - 2) Emission point E8 – 38.2 lb/hr
 - 3) Emission points E4, E5, E6, E10, E11, E12 combined – 210 lb/hr
 [Regulations 6.09, section 3.2 and 7.08, section 3.1.2]
- ii. The owner or operator shall not operate any affected facility for which a control device exists if that control device is not operating.
[40 CFR 64]
- iii. The owner or operator shall not allow fugitive emissions from any of these emission points to create visible emissions beyond the facility lot line.
[Regulation 1.14, section 2.4]

b. Opacity

- i. The owner or operator shall not cause or permit the discharge of any continuous emission into the open air from a control device or stack associated with any affected facility that is in excess of 20% opacity.
[Regulations 6.09, section 3.3.1 and 7.08, section 3.2]
- ii. The owner or operator shall not cause or permit the discharge of fugitive emissions in excess of 20% opacity.
[Regulation 1.14, section 2.3]

S2. Monitoring and Recordkeeping

[Regulation 2.16, sections 4.1.9]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. These logs shall include, at a minimum, the date, and time of the monitoring activity, the name or initials of the person performing the monitoring activity, and the results of the monitoring activity. All records shall be maintained for a period of five years from the date of creation.

a. Particulate Matter

- i. The owner or operator shall keep records of the throughput of grain at each emission point on a monthly basis.
- ii. If there are any periods during which the throughput of any affected facility exceeds 1000 bushels per hour (Comment 1) , the owner or operator shall keep a record of the following for:
 - 1) Date;
 - 2) Start and stop time of the excess throughput;
 - 3) Identification of the affected process equipment;
 - 4) PM emissions during the excess throughput event, in lb/hr;
 - 5) Summary of the cause or reason for the excess throughput event;
 - 6) Corrective action to prevent future excess throughput events.
- iii. The owner or operator shall keep records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.
- iv. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:
 - 1) Date;
 - 2) Start time and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions during the bypass, in lb/hr;
 - 5) Summary of the cause or reason for each bypass event;
 - 6) Corrective action taken to minimize the extent or duration of the bypass event; and
 - 7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event
- iv. The owner or operator shall perform the following inspections to assure ongoing compliance with the established PM emission limit:
[Regulation 6.09, section 3.1; Regulation 7.08, section 3.1.2; 40 CFR 64]
 - 1) Daily:
Verify that the fans associated with the equipment are operating;

2) Monthly:

- (a) Verify that dampers are working properly;
- (b) Verify the bag cleaning mechanisms are working properly;
- (c) Verify baghouse bags are clean and not filled with dust;
- (d) Inspect the bags for excessive wear or damage, and replace if necessary.
- (e) Inspect exhaust stacks for signs of dust accumulation;
- (f) Inspect the mechanical integrity of the baghouses for excessive wear or damage.

b. **Opacity**

- i. The owner or operator shall conduct a monthly one-minute visible emissions survey of each emission point during normal operation and daylight hours. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
- iii. The owner or operator shall keep records of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what, if any, corrective action was performed. If an emission point is not being operated at any time during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 2)

All semi-annual compliance reports shall include the statement “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete” and the signature and title of a responsible official of the company.

[Regulation 2.16, section 3.5.11)]

a. **Particulate Matter**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for PM:

- i. Emission Unit and Emission Point identification;
- ii. Monthly grain throughput for each piece of process equipment and identification of any periods in which the grain throughput exceeded 1000 bushels per hour at any piece of process equipment (Comment 1);
- iii. Actions taken to correct such exceedances;
- iv. Calculations of the PM emission rate during times that standards or limits were exceeded;
- v. The following information regarding control device bypass events:
 - 1) Number of times the PM vent stream bypasses the control device and is vented to the atmosphere;
 - 2) Duration of each bypass to the atmosphere;
 - 3) Calculated pound per hour PM emissions for each bypass; or
 - 4) A negative declaration if no bypasses occurred.
- vi. Identification of any periods for which required inspections were not completed.

b. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for opacity:

- i. Emission Unit ID and Stack ID numbers;
- ii. The time, date, and results for each visual emission survey during which visible emissions were detected. If no visible emissions were observed during the reporting period, the owner or operator shall submit a declaration that no visible emissions were observed;
- iii. The date, time, and results of each Method 9 observation conducted. If no Method 9 observations were performed during the reporting period, the owner or operator shall submit a negative declaration;
- iv. Description of any corrective action taken pursuant to S2.b.ii.

Comments

1. The Company has provided a one-time PM demonstration that the maximum emission rate permitted by regulation cannot be exceeded at any point when controls (if available) are operating, based on a maximum throughput of 1000 bushels of grain per hour.
2. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U1A – Fermentation**Applicable Regulations:**

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
6.13	Standards of Performance for Existing Storage Vessels for Volatile Organic Compounds	all
6.24	Standard of Performance for Existing Sources Using Organic Materials	1, 2, 3, 4, 5

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E40a	Fermentation Tank (42,000 gallons)	6.24	none
E40b	Fermentation Tank (42,000 gallons)		
E40c	Fermentation Tank (42,000 gallons)		
E40d	Fermentation Tank (42,000 gallons)		
E40e	Fermentation Tank (42,000 gallons)		
E40f	Fermentation Tank (42,000 gallons)		
E40g	Fermentation Tank (42,000 gallons)		
E40h	Fermentation Tank (42,000 gallons)		
E40i	Fermentation Tank (42,000 gallons)		
E40j	Fermentation Tank (42,000 gallons)		
E40k	Fermentation Tank (42,000 gallons)		
E40l	Fermentation Tank (42,000 gallons)		
E41	Beer well tank (50,000 gallons)	6.24	none
E42	Heads and Tails Tank (1200 gallons)	6.13	none

Control Devices:

There are no control devices associated with this Emission Unit.

Allowable Emissions:

Regulated Air Pollutant	Standard/Limit
Volatile Organic Compounds	See Additional Condition S1.a.

Additional Conditions**S1. Standards**

[Regulation 2.16, section 4.1.1]

a. Volatile Organic Compounds

- i. The owner or operator shall not allow or cause the VOC emissions from fermentation tanks (E40) or the beer well (E41) to equal or exceed 3000 pounds per day or 450 pounds per hour per piece of equipment.
(Comment 1)
[Regulation 6.24, section 3.3]
- ii. The Heads and Tails tank (E42) shall be equipped with a permanent submerged fill pipe if the true vapor pressure of the volatile organic compound, as stored, is equal to or greater than 1.5 psia. (Comment 2)
[Regulation 6.13, section 3.3]

b. Greenhouse Gasses

There are no applicable standards for this pollutant.

S2. Monitoring and Recordkeeping

[Regulation 2.16, sections 4.1.9.1.2 and 4.1.9.2]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. All records shall be maintained for a period of five years from the date of creation.

a. Volatile Organic Compounds

- i. No monitoring or record keeping are required for fermentation tanks (E40) or the beer well (E41).
- ii. For the Heads and Tails tank (E42), the vapor pressure of the product shall not exceed 1.5 psia at any time, unless the additional control measures specified in S1.a.ii. have been incorporated into the equipment. The owner or operator shall keep the following records:
 - 1) Monthly records of product throughput, and
 - 2) Either
 - (a) Certification that the fill method requirements of S1.a.ii. have been met; or
 - (b) Daily records of the temperature of the product and the percentage of ethanol in the product. If the temperature of the product equals or exceeds 30° C (86° F), the owner or operator shall also perform calculations to determine the vapor pressure of the product. No entry is required for any day on which the subject tank is empty.

b. Greenhouse Gasses

No additional records are required beyond those specified in the general Monitoring and Recordkeeping requirements, S2.

S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 3)

All semi-annual compliance reports shall include the statement “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete” and the signature and title of a responsible official of the company.

(Regulation 2.16, section 3.5.11)

a. **Volatile Organic Compounds**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for VOC:

- i. Emission Unit and Emission Point identification;
- ii. For Emission Point E42, calculations of the vapor pressure during times that the temperature specified in S2.a.ii.2. was exceeded, or a negative declaration if there were no such times. Alternatively, the owner or operator may submit a statement that this tank has a permanent submerged fill-pipe, if such a fill-pipe has been present for the entire reporting period.

b. **Greenhouse Gasses**

There are no regular compliance reporting requirements required for this pollutant.

Comments

1. The potential to emit calculations submitted with the permit renewal application and confirmed by the District show that the potential emissions from each of these affected facilities cannot exceed the standard set forth in this permit.
2. Pure ethanol has a vapor pressure of 1.5 psia at approximately 86° F. The temperature at which this pressure is reached increases as water is added to the ethanol. Based on expected worst-case conditions, there is no expectation that this pressure limit will be exceeded. Temperature monitoring of the product is required and calculation of the vapor pressure will be required if the product temperature exceeds 86° F.
3. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U2 – Barrel Filling Operation

Applicable Regulations:

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 4
6.13	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	1, 2, 3
6.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	1, 2, 3

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E13	Cistern Tank (30,000 gal)	6.13, 1.05	none
E14	Cistern Tank (30,000 gal)	6.13, 1.05	none
E15	Cistern Tank (30,000 gal)	6.13, 1.05	none
E16	Cistern Tank (30,000 gal)	6.13, 1.05	none
E52	Bulk loadout station	6.22	none

Control Devices

There are no control devices associated with this emission unit.

Allowable Emissions:

Regulated Air Pollutant	Standard/Limit
Volatile Organic Compounds	See Additional Condition S1.a.

Additional Conditions

S1. Standards

[Regulation 2.16, section 4.1.1]

a. Volatile Organic Compounds

- i. The Cistern tanks (E13, E14, E15, E16) shall be equipped with a permanent submerged fill pipe if the true vapor pressure of the volatile organic compound, as stored, is equal to or greater than 1.5 psia.
(Comment 1)
[Regulation 6.13, section 3.3]
- ii. If the true vapor pressure of the volatile organic material being loaded into any tank, truck, trailer, or railroad car from the bulk load-out station (E52) exceeds 1.5 psia (Comment 1), the following standards apply:

- 1) If the volume of material loaded exceeds 200 gallons but is less than 20,000 gallons per day, loading shall be accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal.
[Regulation 6.22, section 3.1]
- 2) If the volume of material loaded exceeds 20,000 gallons per day must equip the loading facility with a device which reduces the emission of all hydrocarbon vapors and gasses by at least 90% by weight and which is properly installed, in good working order, and in operation. All displaced vapor and air must be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
[Regulation 6.22, section 3.2]

S2. **Monitoring and Recordkeeping**

[Regulation 2.16, sections 4.1.9.1.2 and 4.1.9.2]

a. **Volatile Organic Compounds**

For any of the emission points that are part of this emission unit, the vapor pressure of the product shall not exceed 1.5 psia at any time, unless the additional control measures specified in S1.a. have been incorporated into the equipment.

The owner or operator shall keep the following records for each affected facility:

[Regulation 1.05, section 4]

- i. For the cistern tanks (E13 – E16) the owner or operator shall keep the following records:
 - 1) Monthly records of product throughput, and
 - 2) Either
 - (a) Certification that the fill method requirements of S1.a.i. have been met; or
 - (b) Daily records of the temperature of the product and the percentage of ethanol in the product. If the temperature of the product equals or exceeds 30° C (86° F), the owner or operator shall also perform calculations to determine the vapor pressure of the product. No entry is required for any day on which the subject tank is empty.
- ii. For the bulk loadout station (E52) the owner or operator shall keep the following records:
 - 1) Monthly records of product throughput, and

- 2) Either
 - (a) Certification that the fill method requirements of S1.a.ii. have been met; or
 - (b) Daily records of the temperature of the product and the percentage of ethanol in the product. If the temperature of the product equals or exceeds 30° C (86° F), the owner or operator shall also perform calculations to determine the vapor pressure of the product. No entry is required for any day on which the subject tank is empty.

S3. **Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 2)

All semi-annual compliance reports shall include the statement “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete” and the signature and title of a responsible official of the company.

(Regulation 2.16, section 3.5.11)

a. **Volatile Organic Compounds**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for VOC:

- i. Emission Unit and Emission Point identification;
- ii. For each emission point, calculations of the vapor pressure during times that the temperature specified in S2.a. was exceeded, or a negative declaration if there were no such times. Alternatively, the owner or operator may submit a statement that the emission control methods specified in S1.a. have been present for the entire reporting period for each affected facility.
- iii. The total monthly throughput for the cistern tanks (E13 – E16) and monthly throughput for the loadout station (E52).

Comments

1. Pure ethanol has a vapor pressure of 1.5 psia at approximately 86° F. The temperature at which this pressure is reached increases as water is added to the ethanol. Based on expected worst-case conditions, there is no expectation that this pressure limit will be exceeded. Temperature monitoring of the product is required and calculation of the vapor pressure will be required if the product temperature exceeds 86° F.
2. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U2A – Barrel Dumping Operations

Applicable Regulations:

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 4
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3, 4, 5
7.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	1, 2, 3

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E18a	10,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18b	10,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18c	10,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18d	30,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18e	30,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18f	30,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18g	30,000 gallon Bulk Storage Tank	7.12, 1.05	none
E18h	7,300 gallon Blending Tank	7.12, 1.05	none
E18i	7,300 gallon Blending Tank	7.12, 1.05	none
E18j	7,300 gallon Blending Tank	7.12, 1.05	none
E18k	7,300 gallon Blending Tank	7.12, 1.05	none
E18m	7,300 gallon Blending Tank	7.12, 1.05	none
E18n	7,300 gallon Blending Tank	7.12, 1.05	none
E18p	7,300 gallon Blending Tank	7.12, 1.05	none
E18q	7,300 gallon Blending Tank	7.12, 1.05	none
E18r	20,000 gallon Blending Tank	7.12, 1.05	none
E53	Truck Loading Rack	7.22, 1.05	none
E54	Truck Loading Rack	7.22, 1.05	none

Control Devices

There are no control devices associated with this emission unit.

Allowable Emissions:

Regulated Air Pollutant	Standard/Limit
Volatile Organic Compounds	See Additional Condition S1.a.

Additional Conditions**S1. Standards**

[Regulation 2.16, section 4.1.1]

a. Volatile Organic Compounds

- i. Each tank (E18) shall each be equipped with a permanent submerged fill pipe if the true vapor pressure of the volatile organic compound, as stored, is equal to or greater than 1.5 psia. (Comment 1)
[Regulation 7.12, section 3.3]
- ii. If the true vapor pressure of the volatile organic material being loaded into any tank, truck, trailer, or railroad car from the bulk load-out stations (E53, E54) exceeds 1.5 psia, the following standards apply: (Comment 1)
 - 1) If the volume of material loaded exceeds 200 gallons but is less than 20,000 gallons per day, loading shall be accomplished by submerged fill, bottom loading, or equivalent methods approved by the District. Pneumatic, hydraulic, or other mechanical means shall be provided to prevent liquid organic compounds drainage from the loading device when it is removed from the hatch, or to accomplish complete drainage before such removal.
[Regulation 7.22, section 3.1]
 - 2) If the volume of material loaded exceeds 20,000 gallons per day must equip the loading facility with a device which reduces the emission of all hydrocarbon vapors and gasses by at least 90% by weight and which is properly installed, in good working order, and in operation. All displaced vapor and air must be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.
[Regulation 7.22, section 3.2]

S2. Monitoring and Recordkeeping

[Regulation 2.16, sections 4.1.9.1.2 and 4.1.9.2]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. All records shall be maintained for a period of five years from the date of creation.

a. Volatile Organic Compounds

For any of the emission points that are part of this emission unit, the vapor pressure of the product shall not exceed 1.5 psia at any time, unless the additional control measures specified in S1.a. have been incorporated into the equipment.

The owner or operator shall keep the following records for each affected facility:
[Regulation 1.05, section 4]

- i. For each of the storage and blending tanks (E18) the owner or operator shall keep the following records:
 - 1) Monthly records of product throughput, and
 - 2) Either
 - (a) Certification that the fill method requirements of S1.a.i. have been met; or
 - (b) Daily records of the temperature of the product and the percentage of ethanol in the product. If the temperature of the product equals or exceeds 30° C (86° F), the owner or operator shall also perform calculations to determine the vapor pressure of the product. No entry is required for any day on which the subject tank is empty.
- ii. For the truck loading racks (E53 and E54) combined, the owner or operator shall keep the following records:
 - 1) Monthly records of total product throughput, and
 - 2) Either
 - (a) Certification that the fill method requirements of S1.a.ii. have been met; or
 - (b) Daily records of the temperature of the product and the percentage of ethanol in the product. If the temperature of the product equals or exceeds 30° C (86° F), the owner or operator shall also perform calculations to determine the vapor pressure of the product. No entry is required for any day on which the subject tank is empty.

S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 2)

All semi-annual compliance reports shall include the statement “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete” and the signature and title of a responsible official of the company.

[Regulation 2.16, section 3.5.11]

a. Volatile Organic Compounds

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for VOC:

- i. Emission Unit and Emission Point identification;
- ii. For each emission point, calculations of the vapor pressure during times that the temperature specified in S2.a. was exceeded, or a negative declaration if there were no such times. Alternatively, the owner or operator may submit a statement that the emission control techniques specified in S1.a. have been present for the entire reporting period for each affected facility.
- iii. Total monthly throughput for the bulk storage tanks (E18a – E18g), total monthly throughput for the blending tanks (E18h – E18r), and total monthly throughput for the loading racks (E53 and E54).

Comments

1. Pure ethanol has a vapor pressure of 1.5 psia at approximately 86° F. The temperature at which this pressure is reached increases as water is added to the ethanol. Based on expected worst-case conditions, there is no expectation that this pressure limit will be exceeded. Temperature monitoring of the product is required and calculation of the vapor pressure will be required if the product temperature exceeds 86° F.
2. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U3 – By-Products Process and Handling

Applicable Regulations:

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.14	Control of Fugitive Particulate Emissions	1, 2, 8
6.09	Standards of Performance for Existing Process Operations	1, 2, 3, 5
7.08	Standards of Performance for New Process Operations	1, 2, 3

FEDERAL REGULATIONS	
Regulation	Title
40 CFR 64	Compliance Assurance Monitoring

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E19	Dehydrator #1	6.09 40 CFR 64	C7
E19a	Process cyclone for Dehydrator #1	6.09	none
E20	Dehydrator #2	6.09 40 CFR 64	C7
E20a	Process cyclone for Dehydrator #2	6.09	none
E21	Dehydrator #3	6.09 40 CFR 64	C7
E21a	Process cyclone for Dehydrator #3	6.09	none
E22	Dehydrator #4	6.09 40 CFR 64	C7
E22a	Process cyclone for Dehydrator #4	6.09	none
E23	Minerals Storage Tank	6.09 40 CFR 64	C8
E24	Solubles Storage Tank	6.09 40 CFR 64	C9
E25	Distillers Dry Grain Storage Tank	7.08 40 CFR 64	C10
E31	Rotary Dryer #1	6.09	none
E32	Rotary Dryer #2	6.09	none
E55	Truck loading	6.09	fugitive

Control Devices:

ID	Description	Performance Indicator	Range	Stack ID
C7	3 Stage Packed Tower Wet Scrubber: Anderseon 2000, model M-38	Pressure drop	1-5 in w.c.	S8
C8	Bin Vent Fabric Filter, DCE, Inc, model V30/15K5; $\epsilon = 99.98\%$	VE survey	N/A	S12
C9	Bin Vent Fabric Filter, DCE, Inc, model V30/15K5; $\epsilon = 99.98\%$	VE survey	N/A	S13
C10	Bin Vent Fabric Filter, DCE, Inc, model V30/15K5; $\epsilon = 99.98\%$	VE survey	N/A	S14

Allowable Emissions:

Regulated Air Pollutant	Standard/Limit
Particulate Matter	See Additional Condition S1.a.i

Additional Conditions**S1. Standards**

[Regulation 2.16, section 4.1.1]

a. Particulate Matter

- i. The owner or operator shall not permit PM emissions from any affected facility, or any air pollution control equipment installed on any affected facility, in excess of: (Comment 1)
 - 1) Emission point E19 – E22 1.80 lb/hr each
 - 2) Emission point E23, E24 3.55 lb/hr each
 - 3) Emission point E25 3.15 lb/hr
 - 4) Emission points E31, E32 2.75 lb/hr each
 - 5) Emission point E55 7.40 lb/hr
 [Regulations 6.09, section 3.2 and 7.08, section 3.1.2]
- ii. The owner or operator shall not operate any affected facility for which a control device exists if that control device is not operating.
[40 CFR 64]
- iii. While in operation, the pressure drop across the wet scrubber (C7) must not be less than 1 inch w.c. or more than 5 inches w.c.
- iv. The owner or operator shall not allow fugitive emissions from any of these emission points to create visible emissions beyond lot line of the facilities property.
[Regulation 1.14, section 2.4]

b. Opacity

- i. The owner or operator shall not cause or permit the discharge of any continuous emission into the open air from a control device or stack associated with any affected facility that is in excess of 20% opacity. [Regulations 6.09, section 3.3.1 and 7.08, section 3.2]
- ii. The owner or operator shall not cause or permit the discharge of fugitive emissions in excess of 20% opacity. [Regulation 1.14, section 2.3]

S2. Monitoring and Recordkeeping

[Regulation 2.16, sections 4.1.9]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. These logs shall include, at a minimum, the date, and time of the monitoring activity, the name or initials of the person performing the monitoring activity, and the results of the monitoring activity. All records shall be maintained for a period of five years from the date of creation.

a. Particulate Matter

- i. The owner or operator shall keep records of the throughput of byproducts at each emission point on a monthly basis.
- ii. If there are any periods during which the throughput of any affected facility exceeds the following (Comment 1):

E19	657 lb/hr
E20	657 lb/hr
E21	657 lb/hr
E22	657 lb/hr
E23	1611 lb/hr
E24	1611 lb/hr
E25	1611 lb/hr
E31	1102 lb/hr
E32	1102 lb/hr
E55	4832 lb/hr

the owner or operator shall keep a record of the following for:

- 1) Date;
- 2) Start and stop time of the excess throughput;
- 3) Identification of the affected process equipment;
- 4) PM emissions during the excess throughput event, in lb/hr;
- 5) Summary of the cause or reason for the excess throughput event;
- 6) Corrective action to prevent future excess throughput events.
- iii. The owner or operator shall keep records of any periods of time where the process was operating and the control device was not operating or a declaration that the control device operated at all times that day when the process was operating.

- iv. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:
 - 1) Date;
 - 2) Start time and stop time;
 - 3) Identification of the control device and process equipment;
 - 4) PM emissions during the bypass in lb/hr;
 - 5) Summary of the cause or reason for each bypass event;
 - 6) Corrective action taken to minimize the extent or duration of the bypass event; and
 - 7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event
- v. The owner or operator shall perform the following inspections at least once per calendar month to assure ongoing compliance with the established PM emission:
[Regulation 6.09, section 3.1, Regulation 7.08, section 3.1.2, 40 CFR 64]
 - 1) Daily:
 - (a) Verify that the fans associated with the equipment are operating;
 - (b) Record the pressure differential across the wet scrubber (C7);
 - 2) Monthly:
 - (a) Verify that dampers are working properly;
 - (b) Verify the bag cleaning mechanisms are working properly;
 - (c) Verify baghouse bags are clean and not filled with dust;
 - (d) Inspect the bags for excessive wear or damage, and replace if necessary.
 - (e) Inspect exhaust stacks for signs of dust accumulation;
 - (f) Inspect the mechanical integrity of the baghouses for excessive wear or damage.

b. Opacity

- i. The owner or operator shall conduct a monthly one-minute visible emissions survey of each emission point during normal operation and daylight hours. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.
- iii. The owner or operator shall keep records of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the

person conducting the survey, whether or not visible emissions were observed, and what, if any, corrective action was performed. If an emission point is not being operated at any time during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

S3. **Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 2)

All semi-annual compliance reports shall include the statement “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete” and the signature and title of a responsible official of the company.

[Regulation 2.16, section 3.5.11]

a. **Particulate Matter**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for PM:

- i. Emission Unit and Emission Point identification;
- ii. Identification of any periods in which the byproduct throughput rate exceeded the rate described in Comment 1 at which potential controlled PM was calculated;
- iii. Any excursions outside the operating range for the wet scrubber, as set forth in U3-S1.a.iii.
- iv. Actions taken to correct such excursions or exceedances
- v. Calculations of the PM emission rate during times that standards or limits were exceeded;.

- vi. The following information regarding control device bypass events:
 - 1) Number of times the PM vent stream bypasses the control device and is vented to the atmosphere;
 - 2) Duration of each bypass to the atmosphere;
 - 3) Calculated pound per hour PM emissions for each bypass; or
 - 4) A negative declaration if no bypasses occurred.
- vii. Identification of any periods for which required inspections were not completed.

b. **Opacity**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for opacity:

- i. Emission Unit ID and Stack ID numbers;
- ii. The time, date, and results for each visual emission survey during which visible emissions were detected. If no visible emissions were observed during the reporting period, the owner or operator shall submit a declaration that no visible emissions were observed;
- iii. The date, time, and results of each Method 9 or observation conducted. If no Method 9 or observations were performed during the reporting period, the owner or operator shall submit a negative declaration;
- iv. Description of any corrective action taken pursuant to S2.b.ii.

Comments

1. Based on maximum throughputs supplied by Brown Forman Distillery in the permit renewal application, the potential controlled emissions cannot exceed the standard set forth in the referenced regulation when controls are operating.

The maximum throughput for each emission point, as provided in the Title V renewal application, is:

E19	657 lb/hr
E20	657 lb/hr
E21	657 lb/hr
E22	657 lb/hr
E23	1611 lb/hr
E24	1611 lb/hr
E25	1611 lb/hr
E31	1102 lb/hr
E32	1102 lb/hr
E55	4832 lb/hr

2. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U4 - Power Generation**Applicable Regulations:**

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.14	Control of Fugitive Particulate Emissions	1, 2, 8
6.07	Standards of Performance for Existing Indirect Heat Exchangers	1, 2, 3, 4
6.09	Standards of Performance for Existing Process Operations	1, 2, 3
7.06	Standards of Performance for New Indirect Heat Exchangers	1, 2, 3, 4, 5
7.08	Standards of Performance for New Process Operations	1, 2, 3, 4

FEDERAL REGULATIONS	
Regulation	Title
40 CFR 63, Subpart JJJJJJ	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources
40 CFR 64	Compliance Assurance Monitoring

DISTRICT-ONLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.01	General Provisions (STAR)	all
5.21	Environmental Acceptability for Toxic Air Contaminants	1, 2
5.23	Categories of Toxic Air Contaminants	1, 2

Control Devices:

ID	Description	Performance Indicator	Range	Stack ID
C11	Pulsejet Baghouse: Zurn, model 1ZJ-660-10, $\epsilon = 98.5\%$	ΔP	1.5 - 7.0 in. w.c.	S15
C12	Bin Vent Fabric Filter: DCE, Inc, model DMVE/10F1, $\epsilon = 99.98\%$	N/A		S18
C13	Bin Vent Fabric Filter: DCE, Inc, model DMVE/10F1, $\epsilon = 99.98\%$	N/A		S19

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E26	Boiler #1 - Henry Vogt; Maximum permitted capacity: 90 MMBtu/hr; Installation date: 1965 Primary fuel: bituminous coal (spreader stoker); Secondary fuel: natural gas	6.07; 40 CFR 63, subpart JJJJJJ; 40 CFR 64	C11
E27	Boiler #2 - Henry Vogt; Maximum permitted capacity: 55MMBtu/hr; Installation date: 1973; Fuel: natural gas	7.06	none
E29	Coal Unloading pit	1.14	fugitive
E29a	Coal Storage Silo	7.08, 40 CFR 64	C12
E30	Coal Ash (fly and bottom) Storage Silo	6.09, 40 CFR 64	C13
E30a	Coal Ash Handling	1.14	none

Allowable Emissions:

Emission Point	Regulated Air Pollutant	Standard/Limit	Regulation
E26	PM	Coal: 0.33 lb/MMBtu; 30.0 lb/hr at full capacity Gas: 0.37 lb/MMBtu; 20.6 lb/hr at full capacity	6.07 §3.1
	NO _x	See Additional Condition S1.d.	6.42
	SO ₂	Coal: 1.75 lb/MMBtu; 158 lb/hr at full capacity Gas: 1.49 lb/MMBtu; 82.0 lb/hr at full capacity	6.07 §4.1
	HCl	< 10 tons/yr	See Comment 3
	CO	400 ppm @3% oxygen in exhaust gas	40 CFR 63, subpart JJJJJJ
	Hg	4.8x 10 ⁻⁶ lb/MMBTU	40 CFR 63, subpart JJJJJJ
E27	PM	0.30 lb/MMBtu 26.8 lb/hr at full capacity	7.06 §4.1.3
	NO _x	See Additional Condition S1.d.	6.42
	SO ₂	1.0 lb/MMBtu 55.0 lb/hr at full capacity	7.06 §5.1.1
E29	PM	See Additional Condition S1.a.vii	1.14 §2.4
E29a	PM	7.80 lb/hr	7.08 §3.3.1
E30	PM	2.58 lb/hr	6.09 §3.4
E30a	PM	See Additional Condition S1.a.vii	1.14 §2.4

Additional Conditions**S1. Standards**

[Regulation 2.16, section 4.1.1]

a. Particulate Matter (PM)

- i. The owner or operator shall not allow or cause the PM emissions from Boiler #1 (E26) or associated air pollution control equipment (C11) to exceed 0.33 lb/MMBtu actual heat input, when firing coal or 0.37 lb/MMBtu actual heat input when firing natural gas.
[Regulation 6.07, section 3.1]
- ii. Only bituminous coal or natural gas may be fired in Boiler #1 (E26). These fuels may not be burned simultaneously. (Comment 2)
- iii. The owner or operator shall not allow or cause the PM emissions from Boiler #2 (E27) to exceed 0.30 lb/MMBtu actual heat input, when firing natural gas.
[Regulation 7.06, section 4.1.3]
- iv. Natural Gas is the only fuel that may be fired in Boiler #2 (E27).
- v. The owner or operator shall not allow or cause the PM emissions from the coal storage silo (E29a) to exceed 7.80 lb/hr. (Comment 1)
[Regulation 7.08, section 3.3.1]
- vi. The owner or operator shall not allow or cause the PM emissions from the coal ash storage silo (E30) to exceed 2.58 lb/hr.
[Regulation 6.09, section 3.2]
- vii. The owner or operator shall not allow fugitive emissions from any emission points to create visible emissions beyond lot line of the facilities property.
[Regulation 1.14, section 2.4]
- viii. The owner or operator shall maintain the pressure differential of baghouse C11 between 1.5 and 7.0 inches water column while Boiler #1 (E26) is burning bituminous coal. Operation and monitoring of the baghouse is not required while this boiler is firing natural gas.

b. Opacity

- i. The owner or operator shall not allow or cause any emission from Boiler #1 (E26) into the open air which is greater than 20% opacity, [Regulation 6.07, section 3.2] except for the following:
 - 1) While building a new fire and during periods of cleaning the fire box or soot blowing, the opacity can exceed 20%, but not exceed 40% for periods aggregating no more than 10 minutes in any contiguous 60 minute period;
[Regulation 6.07, section 3.3.1]

- 2) During startup operations with coal combustion, the opacity limits shall be:
[Regulation 6.07, section 3.3.2]
 - (a) First 30 minutes, <80%
 - (b) Next hour, <60%
 - (c) Next 2 ½ hours, 40%
- ii. The owner or operator shall not allow or cause any emission from Boiler #2 (E27) into the open air which is greater than 20% opacity, except for the following:
[Regulation 7.06, section 4.2]
 - 1) A maximum opacity of 40% shall be permitted for no more than two consecutive minutes in any 60 consecutive-minute period;
 - 2) While building a new fire, for the period required to bring the boiler to normal operating conditions using the methods recommended by the manufacturer, for a length of time not to exceed the time recommended by the manufacturer.
- iii. The owner or operator shall not allow or cause any continuous emission into the air from a control device or stack associated with the coal storage silo (E29a) or coal ash storage silo (E30) that is equal to or greater than 20% opacity.
[Regulation 7.08, section 3.2 and Regulation 6.09, section 3.3]
- iv. The owner or operator shall not cause or permit the discharge of fugitive emissions in excess of 20% opacity.
[Regulation 1.14, section 2.3]
- c. **Sulfur Dioxide (SO₂)**
 - i. The owner or operator shall not allow or cause the emission of SO₂ from Boiler #1 (E26) to exceed 1.75 lb/MMBtu of actual heat input when firing coal or 1.49 lb/MMBtu of actual heat input when firing natural gas.
[Regulation 6.07, section 4.1]
 - ii. The owner or operator shall not allow or cause the emission of SO₂ from Boiler #2 (E27) to exceed 1.0 lb/MMBtu of actual heat input when firing natural gas.
[Regulation 7.06, section 5.1.1]
- d. **Nitrogen Oxides (NO_x)**

The owner or operator shall not allow plant-wide emission of more than 100 tons of NO_x in any twelve consecutive-month period, to avoid being subject to the requirements of District Regulation 6.42.

e. **Carbon Monoxide (CO)**

This requirement applies to only Boiler #1 (E26) when burning coal.

This requirement for Boiler #1 (E26) becomes effective on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJ.

The owner or operator shall not allow the emission rate of CO to exceed 400 ppm by volume on a dry basis, corrected to 3% oxygen, while combusting coal.
[40 CFR 63.11201(a)]

f. **Greenhouse Gasses**

There are no applicable standards for this pollutant.

g. **Toxic Air Contaminants**

The owner or operator shall not allow any TAC emissions to exceed environmentally acceptable levels, whether specifically established by modeling, or derived from default *de minimis* levels provided by the District. (Comment 3)
[Regulations 5.01, 5.21, 5.23]

h. **Hazardous Air Pollutants (HAP)**

These requirements apply to only Boiler #1 (E26) when burning coal.

i. **Hydrogen Chloride (HCl)**

The owner or operator shall not allow emission of HCl from Boiler #1 (E26) to equal or exceed 10 tons in any twelve consecutive-month period. (Comment 4) Determination of the HCl emissions shall be based on AP-42 emission factors unless emission testing has been performed to establish a site-specific emission factor.

ii. **Mercury (Hg)**

This requirement for Boiler #1 (E26) becomes effective on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJ.

The owner or operator shall not emit mercury at a rate greater than 4.8×10^{-6} lb/MMBTU of heat input, while combusting coal.
[40 CFR 63.11201(a)]

i. **Work Practice Standards and Management Practices [40 CFR 63.11201(b)]**

The following requirements become effective for Boiler #1 (E26) on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJ.

- i. At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
[40 CFR 63.11205(a)]

- ii. The owner or operator must minimize startup and shutdown periods following the manufacturer's procedures, if available, or the recommended procedures for a boiler of similar design.
[40 CFR 63.11201(b)]
- iii. The owner or operator must conduct a one-time energy assessment performed by a qualified energy assessor. This assessment must meet the requirements outlined in 40 CFR 63, subpart JJJJJ, Table 2, item 4.
[40 CFR 63.11201(b)]

S2. **Monitoring and Recordkeeping**

[Regulation 2.16, sections 4.1.9]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. These logs shall include, at a minimum, the date, and time of the monitoring activity, the name or initials of the person performing the monitoring activity, and the results of the monitoring activity. Records of all required monitoring data and support information shall be maintained for five years from the date of the monitoring activity, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings or computer data and log files for continuous monitoring instrumentation, and copies of all other records required by the permit.

The owner or operator shall keep the following records, at a minimum:

- The type and quantity of fuel combusted in each boiler every month;
- The following pollutant-specific data:

a. **Particulate Matter**

The owner or operator shall monitor and keep records of the following parameters to demonstrate ongoing compliance with the hourly PM emission limits:

- i. Record the air pressure drop across the pulsejet baghouse, C11 every operating day. The owner or operator shall perform the necessary maintenance when the pressure drop is less than 1.5 in. w.c. or exceeds 6 in. w.c. The unit alarm shall be set to sound when the pressure drop equals or exceeds 7 in. w.c.
[Regulation 6.07, section 3.1 and 40 CFR 64]
- ii. The heating value and ash content of the coal shall be determined, either by laboratory analysis or by supplier's statement, for each new lot of coal.
- iii. At least once per calendar month, visually inspect the structural and mechanical integrity of the bin vent fabric filters C12 and C13 for signs of damage, air leakage, corrosion, etc. Any conditions discovered that affect the air pollution-control performance of these units shall be repaired within seven calendar days of discovery.
[Regulation 6.07, section 3.1 and 40 CFR 64]

b. Opacity

- i. The owner or operator shall comply with the following opacity monitoring and recordkeeping requirements for Boiler #1 (E26) while burning coal:
 - 1) Perform a 1-minute visual emission survey at the stack exit and any intermediate emission sources every operating day;
 - 2) Survey frequency may be changed to weekly if no visible emissions are observed during sixty consecutive operating days. (Comment 5) However, if the pressure drop across the pulsejet baghouse, C11, is less than 1.5 in w.c., a visible emission survey shall be conducted immediately;
 - 3) If any visible emissions are observed from the stack exit, corrective action shall be instituted within 8 hours. If visible emissions persist, the owner or operator shall perform a Method 9 opacity test within 24 hours of the initial observation. If the opacity is determined to exceed the standard set forth in S1.b.i, the owner or operator shall notify the District and take all practical steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted in accordance with S2.b.i.1.
- ii. The owner or operator shall comply with the following opacity monitoring and recordkeeping requirements for Boiler #1 (E26) and Boiler #2 (E27) while burning natural gas:
 - 1) Perform a 1-minute visual emission survey at the stack exit and any intermediate emission sources at least once per calendar month;
 - 2) If any visible emissions are observed from the stack exit, corrective action shall be instituted within 8 hours. If visible emissions persist, the owner or operator shall perform a Method 9 opacity test within 24 hours of the initial observation. If the opacity is determined to exceed the standard set forth in S1.b.i or S1.b.ii., as applicable, the owner or operator shall notify the District and take all practical steps to eliminate the exceedance.
- iii. For Emission Points E29a and E30, the owner or operator shall comply with the following opacity monitoring and recordkeeping requirements:
 - 1) Perform a 1-minute visual emission survey at the stack exit and any intermediate emission sources at least once per week;
 - 2) Survey frequency may be changed to monthly if no visible emissions are observed during twelve consecutive operating weeks; (Comment 6)
 - 3) If any visible emissions are observed from either of the subject emission points, corrective action shall be instituted within 8 hours. If visible emissions persist, the owner or operator shall perform a Method 9 opacity test within 24 hours of the initial

observation. If the opacity is determined to exceed the standard set forth in S1.b.iii the owner or operator shall notify the District and take all practical steps to eliminate the exceedance. Subsequent visible emission surveys shall be conducted in accordance with S2.b.iii.1.

- iv. If an emission point is not being operated during the entire observation period, no visible emission survey need be performed and a negative declaration should be entered into the record. Sufficient documentation should be available to demonstrate that the emission point was not operated during the relevant period.

c. **Sulfur Dioxide (SO₂)**

The owner or operator shall monitor and keep records sufficient to demonstrate ongoing compliance with the hourly SO₂ emission limits.

- i. The sulfur content of the coal shall be determined, either by laboratory analysis or by supplier's certification, for each new lot of coal;
- ii. Calculate the maximum sulfur emission rate for each boiler, based on firing rate, hours of operation, and sulfur content, each calendar month.
- iii. If a stack test has been performed to determine SO₂ emission factors, those emission factors shall be used to determine monthly and annual emissions. If stack test emission factors are not available, the emission factors printed in the most recent edition of AP-42, or another method, if approved by the District, shall be used to determine monthly emissions.

d. **Nitrogen Oxides (NO_x)**

The owner or operator shall monitor and keep records sufficient to demonstrate ongoing compliance with the annual NO_x emission limits:

- i. Calculate the monthly total NO_x emissions from all boilers each calendar month;
- ii. Calculate the twelve-consecutive-month total NO_x emissions from all boilers each calendar month.
- iii. If a stack test has been performed to determine NO_x emission factors, these factors shall be used to determine monthly and annual emissions. If stack test emission factors are not available, the emission factors printed in the most recent edition of AP-42, or another method, if approved by the District, shall be used to determine monthly emissions.

e. **Carbon Monoxide**

These requirements apply to only Boiler #1 (E26) when burning coal.

The following requirements for Boiler #1 (E26) become effective on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJ.

- i. The owner or operator must develop a site-specific monitoring plan to insure compliance with the emission limit in S1.e. This plan must be submitted to the District and, upon request, to the EPA Administrator at least 60 days before the initial compliance evaluation (stack test).
[40 CFR 63.11224]
- ii. The owner or operator must install, operate, and maintain a continuous oxygen monitor as specified in the most recent revision of 40 CFR 62, subpart JJJJJ. The monitor must be installed, operated, and maintained according to the applicable procedures under Performance Specification 3 at 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to S4.c.i.
 - 1) The oxygen monitor must complete one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period of operation.
 - 2) The owner or operator must calculate and record the 12-hour block average concentrations.
 - 3) For purposes of calculating data averages, the owner or operator must use all the data collected during all periods in assessing compliance, excluding data collected during periods when the monitoring system malfunctions or is out of control, during associated repairs, and during required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments).

f. **Greenhouse Gasses**

No additional records are required beyond those specified in the general Monitoring and Recordkeeping requirements, S2.

g. **Toxic Air Contaminants**

- i. The owner or operator shall keep records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.
- ii. If a new TAC is introduced or the content of a TAC in a raw material increases, the owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions.

h. Hazardous Air Pollutants

These requirements apply to only Boiler #1 (E26) when burning coal.

i. Hydrogen Chloride (Comment 4)

The owner or operator shall monitor and keep records sufficient to demonstrate ongoing compliance with the annual HCl emission limits:

- 1) Record the amount of fuel combusted each month;
- 2) Calculate and record the monthly HCl emissions each month. HCl emissions shall be determined using the emission factor published in AP-42 or, if available, the value determined in an on-site stack test, or another method, if approved by the District;
- 3) Calculate the twelve-consecutive-month total HCl emissions each calendar month.

ii. Mercury [40 CFR 63.11222]

The following requirements for Boiler #1 (E26) become effective on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJJ.

The owner or operator shall monitor and keep records of the following parameters to demonstrate ongoing compliance with the Hg emission rate limit:

[40 CFR 63.11224(a)]

- 1) The owner or operator must keep monthly records of the type and amount of all fuels burned.
[40 CFR 63.11222(a)(2) and 40 CFR 63, subpart JJJJJJ, table 7, item 6]
- 2) The owner or operator may demonstrate compliance with the mercury emission limit in S1.h.ii using fuel analysis if the emission rate calculated S2.h.ii.2.(a)(ii) is less than the applicable emission rate. Otherwise, compliance MUST be demonstrated with a stack test.

[40 CFR 63.11205(b)]

(a) Fuel Analysis Requirements:

- (i) Determine the mercury concentration in the fuel according to the procedures specified in 40 CFR 63, subpart JJJJJJ, table 5.
[40 CFR 63.11213(c)]
- (ii) Determine the 90th percentile confidence level fuel mercury concentration of the composite samples analyzed for each fuel type using this equation:
[40 CFR 63.11211(c)(2)]

$$P_{90} = \overline{C_{Hg}} + (\sigma_{C_{Hg}} * t)$$

Where:

P_{90} = 90th percentile confidence level mercury concentration, in pounds per million BTU

$\overline{C_{Hg}}$ = Arithmetic average of the fuel mercury concentration in the fuel samples analyzed according to §63.11213, in units of pounds per million Btu.

$\sigma_{C_{Hg}}$ = Standard deviation of the mercury concentration in the fuel samples analyzed according to §63.11213, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

- (iii) The owner or operator must conduct a fuel analysis according to this procedure monthly, and must then recalculate the emission rate monthly. To demonstrate continuous compliance, the recalculated mercury emission rate must be less than the applicable emission rate.
[40 CFR 63.11220(e)]

- 3) If compliance is demonstrated through performance stack testing, the owner or operator must operate and maintain a continuous monitor of the operating load of the boiler.
[40 CFR 63.11205(c)]
 - (a) Develop a site-specific monitoring plan to insure compliance with the emission standard in S1.h.ii. This plan must be submitted to the District and, upon request, to the EPA Administrator, at least 60 days before the initial compliance evaluation (stack test);
[40 CFR 63.11224(c)]
 - (b) Maintain the operating load of the boiler such that it does not exceed 110 percent of the average load recorded during the most recent performance stack test required in S4.
[40 CFR 63, subpart JJJJJ, Table 3, item 7]

i. **Work Practice Standard and Management Practices**

The owner or operator must submit a Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed

and include a copy of the energy assessment report. This Notification of Compliance Status report must state "this facility has had an energy assessment performed according to 40 CFR 63.11214(c)," and be signed by a Responsible Official of the company. This report must be submitted no later than 120 days after the compliance date specified in 40 CFR 63, subpart JJJJJ.

S3. Reporting

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 7)

All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a responsible official of the company. (Regulation 2.16, section 3.5.11)

a. Particulate Matter

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for PM:

- i. Emission Unit ID and Stack ID numbers;
- ii. Identification of any periods in which any of the PM emission standards presented in S1.a are exceeded, and the emission rates during the periods of exceedance;
- iii. The reason for the exceedance;
- iv. Description of any corrective actions taken to prevent future exceedances.

b. Opacity

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for opacity:

- i. Emission Unit ID and Stack ID numbers;
- ii. The time, date, and results for each visual emission survey during which visible emissions were detected. If no visible emissions were observed during the reporting period, the owner or operator shall submit a declaration that no visible emissions were observed;

- iii. The date, time, and results of each Method 9 observation conducted. If no Method 9 observations were performed during the reporting period, the owner or operator shall submit a negative declaration;
- iv. Description of any corrective action taken pursuant to S2.b.i.3., S2.b.ii.2., and S2.b.iii.3.

c. **Sulfur Dioxide (SO₂)**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for SO₂:

- i. Emission Unit ID and Stack ID numbers;
- ii. Identification of any periods in which any of the SO₂ emission standards presented in S1.c.i or S1.c.ii were exceeded, and the emission rates during the periods of exceedance;
- iii. The reason for the exceedance;
- iv. Description of any corrective actions taken to prevent future exceedances.

d. **Nitrogen Oxides (NO_x)**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for NO_x:

- i. Emission Unit ID and Stack ID numbers
- ii. The plant-wide NO_x emissions for each month of the reporting period;
- iii. The twelve-consecutive-month plant-wide NO_x emissions for each month of the reporting period.

e. **Carbon Monoxide**

The following requirements for Boiler #1 (E26) become effective on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJ.

- i. Identification of any periods in which any of the emission standards presented in S1.e. are exceeded, and the emission rates during the periods of exceedance;
- ii. The reason for exceedance of the emission standard;
- iii. Description of any corrective actions taken to prevent future exceedances.

f. **Greenhouse Gasses**

The owner or operator shall submit the monthly and twelve-month rolling total usage records for coal and natural gas.

g. **Toxic Air Contaminants**

The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months of a change affecting the EA demonstration.

h. **Hazardous Air Pollutants** [40 CFR 63.11225]

These requirements apply to only Boiler #1 (E26) when burning coal.

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for HAPs:

i. **Hydrogen Chloride**

- 1) The total coal usage for Boiler #1 (E26) for each calendar month in the reporting period;
- 2) The monthly total HCl emissions for each month of the reporting period;
- 3) The twelve-consecutive-month total HCl emissions for each month of the reporting period;
- 4) Identification of any period in which the twelve-consecutive-month total HCl emission exceeds 10 tons.

ii. **Mercury**

The following requirements for Boiler #1 (E26) become effective on the compliance date of 21 March 2014, or other compliance date as stated in the most recent revision of 40 CFR 63, subpart JJJJJ.

- 1) Identification of any periods in which any of the emission standards presented in S1.h.ii. are exceeded, and the emission rates during the periods of exceedance;
- 2) The reason for exceedance of the emission standard;
- 3) Description of any corrective actions taken to prevent future exceedances.

i. **Work Practice Standards and Management Practices**

The owner or operator must submit a signed statement that indicates that startups and shutdowns are conducted according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

j. **Baghouse C11**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports for the baghouse:

- i. Identification of the performance parameter that is monitored;
- ii. The duration and cause of all excursions outside the defined performance parameters, or a negative declaration if there are no such excursions;
- iii. Description of any corrective actions taken to prevent further out-of-range excursions.

S4. Compliance Testing**a. Work Practice Standards**

The owner or operator must demonstrate compliance with the work practice standards and management practices by the compliance date listed in 40 CFR 63, subpart JJJJJ. [40 CFR 63.11210(c)]

b. Emission Rate Demonstration

Compliance with the CO and Hg emission limits specified in S1.e. and S1.h.ii. respectively must be demonstrated no later than 180 calendar days after this compliance date.

[40 CFR 63.11210(b)]

i. Stack test [40 CFR 63.11212]

For EP E26, the owner or operator of an affected source must notify the District in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin. In the event the owner or operator is unable to conduct the performance test on the date specified, the owner or operator must notify the District as soon as practicable and without delay prior to the scheduled performance test date and specify the date when the performance test is rescheduled. [40 CFR 63.7(b)]

- 1) At least 60 calendar days before the proposed performance stack test, the owner or operator shall develop a site-specific test plan and submit the plan to the District for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.
- 2) The owner or operator shall report the results of the performance test to the District before the close of business on the 60th day following the completion of the performance test.
- 3) Carbon Monoxide
 - (a) The owner or operator must conduct a stack test at representative load conditions determine the CO emission rate. The initial test must be completed by 180 days after the compliance date and testing must be repeated triennially. [40 CFR 63.11211(a)]
 - (b) Subsequent triennial performance tests must be completed no more than 37 months after the previous performance test. [40 CFR 63.11220(a)]

4) Mercury

If a stack test is performed to demonstrate compliance with the Hg emission standard (S1.g.iii) the following requirements must be met:

- (a) Conduct an initial fuel analysis;
[40 CFR 63.11213]
- (b) Conduct stack test at representative load conditions to determine the mercury emission rate. Stack tests must meet the requirements specified in 40 CFR 63.11212. The initial test must be completed 180 days after the compliance date and testing must be repeated triennially;

c. **Continuous Monitoring System Performance Evaluation**

The owner or operator shall notify the District in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under S4.b.i. [40 CFR 63.8(e)]

- i. Before conducting a required CMS performance evaluation, the owner or operator shall develop a site-specific performance evaluation test plan and submit the plan to the District for approval. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.
- ii. The owner or operator shall furnish the District a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under S2.e. or S2.h.ii.3 and no later than the close of business on the 60th day following the completion of the CMS performance evaluation.

Comments

1. A one-time compliance demonstration was performed for the coal storage silo (E29a) and ash silo (E30) on 4/21/2008. This demonstration showed that the PM emission standard cannot be exceeded uncontrolled.
2. Small quantities (typically less than 300 pounds per month) of charred wood recovered from barrel dumping operations may be included with the coal that is burned in Boiler #1.
3. In the *Category 1 TAC Demonstration of Environmental Acceptability* report, dated 19 December 2006 and revised on 11 May 2007, all Category 1 TACs were shown to either be *de minimis* or were modeled with risks less than the environmentally acceptable goal. The *Category 2 TAC Demonstration of Environmental Acceptability* report, dated 6 March 2008, noted that only Category 2 TACs reported in the 2006 TRI must be considered [Regulation 5.21, section 4.1] and that there were no Category 2 TACs reported on that submission.
4. This provision is to ensure that the permittee remains classified as an area source for HAP emissions and therefore subject to 40 CFR 63, subpart JJJJJ rather than 40 CFR 63, subpart DDDDD. Based on the HCl emission factor of 1.2 lb_{HCl}/ton_{coal} presented in AP-42, Table 1.1-15, the coal combustion limit is set at 16,600 tons/year. This limit will be recalculated after a site-specific HCl emission factor has been established.
5. If the owner or operator has met the 60-consecutive-day requirement of S2.b.i.2 as a result of monitoring for the prior version of this permit, he may continue with weekly monitoring.
6. If the owner or operator has met the 12-consecutive-week requirement of S2.b.iii.2 as a result of monitoring for the prior version of this permit, he may continue with monthly monitoring.
7. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U5 - Low-Alcohol Bottling Line**Applicable Regulations:**

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.05	Compliance With Emission Standards and Maintenance Requirements	1, 4, 5
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	1 - 8
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	1 - 5

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E33	Slurry Tank - (450 gal)	7.12, 1.05	none
E34	Ingredient Tank (12,000 gal)	7.12, 1.05	none
E35	Batch Tank #1 (10,000 gal)	7.12, 1.05	none
E36	Batch Tank #2 (10,000 gal)	7.12, 1.05	none
E37	Batch Tank #3 (10,000 gal)	7.12, 1.05	none
E57	Ingredient tank (30,000 gal)	7.12, 1.05	none
E58	Ingredient Tank (20,000 gal)	7.12, 1.05	none
E59	Ingredient Tank (10,000 gal)	7.12, 1.05	none
E60	Ingredient Tank (7,000 gal)	7.12, 1.05	none
E61	Ingredient Tank (10,490 gal)	7.12, 1.05	none
E62	Bottle Filler: H&K model WF100-16, with associated 250 gallon buffer tank	7.25, 1.05	none

Control Devices:

There are no control devices associated with this emission unit.

Allowable Emissions:

Emission Point	Regulated Air Pollutant	Standard/Limit	Regulation
All tanks: E33-E37, E57-E61	VOC	See Additional Condition S1.a.i	7.12 §3.3
E62		less than 5 tons per year	7.25 §3.1

Additional Conditions**S1. Standards**

[Regulation 2.16, section 4.1.1]

a. Volatile Organic Compounds (VOC)

- i. The VOC storage tanks (Emission Points E33, E34, E35, E36, E37, E57, E58, E59, E60, E61) shall each be equipped with a permanent submerged fill pipe if the true vapor pressure of the volatile organic compound, as stored, is equal to or greater than 1.5 psia (Comment 1)
[Regulation 7.12, section 3.3]
- ii. The owner or operator shall not allow or cause the VOC emissions from the Bottle Filler (E62) to equal or exceed 5 tons in any period of twelve consecutive months. This may be accomplished by limiting bottling throughput to less than 17,900,000 gallons in any twelve consecutive-month period. (Comment 2)
[Regulation 7.25]

S2. Monitoring and Recordkeeping

[Regulation 2.16, sections 4.1.9]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. All records shall be maintained for a period of five years from the date of creation.

a. Volatile Organic Compounds (VOC)

- i. For any of the emission points listed in S1.a.i. that is used to store a VOC-containing product, the vapor pressure of the product shall not exceed 1.5 psia at any time, unless the additional control measures specified in S1.a.i have been incorporated into the equipment. The owner or operator shall keep the following records for each affected facility:
[Regulation 1.05, section 4]
 - 1) Monthly records of product throughput, and
 - 2) Either
 - (a) Certification that the fill method requirements of S1.a.ii. have been met; or
 - (b) Daily records of the temperature of the product, and the percentage of ethanol in the product. If the temperature of the product equals or exceeds 30° C (86° F), the owner or operator shall also perform calculations to determine the vapor pressure of the product. No entry is required for any day on which the subject tank is empty.

- ii. The owner or operator shall keep the following records for the bottling line (E62) to demonstrate ongoing compliance with the VOC limits:
 - 1) Monthly total production;
 - 2) Total VOC emissions for each month;
 - 3) Total VOC emissions for each twelve consecutive-month period.

S3. **Reporting**

[Regulation 2.16, section 4.1.9.3]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include:

- Company name,
- Plant ID number,
- Beginning and ending date of the reporting period.

The compliance reports shall clearly identify any deviations from a permit requirement or a negative declaration if there were no deviations.

The compliance reports shall be postmarked no later than 60 days after the end of the reporting period. (Comment 3)

All semi-annual compliance reports shall include the statement “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete” and the signature and title of a responsible official of the company. (Regulation 2.16, section 3.5.11)

a. **Volatile Organic Compounds (VOC)**

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring report for VOC:

- i. Emission Unit and Emission Point ID;
- ii. For each emission point listed in S1.a.i. that is used to store a VOC-containing product, calculations of the vapor pressure during times that the temperature specified in S2.a.i.2. was exceeded, or a negative declaration if there were no such times. Alternatively, the owner or operator may submit a statement that the emission control techniques specified in S1.a. have been present for the entire reporting period for each affected facility.
- iii. For the bottling line (E62):
 - 1) The monthly VOC emissions for each month of the reporting period;
 - 2) The twelve-consecutive-month VOC-emission total for each month of the reporting period.

Comments

1. Pure ethanol has a vapor pressure of 1.5 psia at approximately 86° F. The temperature at which this pressure is reached increases as water is added to the ethanol. Based on expected worst-case conditions, there is no expectation that this pressure limit will be exceeded. Temperature monitoring of the product is required and calculation of the vapor pressure will be required if the product temperature exceeds 86° F.
2. VOC emissions will be calculated using an emission factor of 0.548 lb_{VOC}/1000 gal. (AP42, Chapter 9.12.1, table 2, SCC 3-02-009-53; October 1996). Based on this emission factor, and using a limit of 4.9 tons of emissions (to provide a safety factor), the production limit is 17,900,000 gallons per twelve consecutive months.
3. Semi-Annual Reporting Deadlines:

<u>Reporting Period</u>	<u>Report Submittal Deadline</u>
January – June	31 August
July – December	1 March of the following year

U6 – Barrel Storage and Aging Warehouse

Applicable Regulations:

FEDERALLY ENFORCABLE REGULATIONS		
Regulation	Title	Applicable Sections
1.05	Compliance With Emission Standards and Maintenance Requirements	1, 4

Emission Points:

Emission Point	Description	Applicable Regulation	Control ID
E64	Barrel Filling (4 filling stations)	1.05	Fugitive
E17	Barrel Storage Warehouses (8 warehouses, labelled B, G, H, I, J, K, L, and O)	1.05	Fugitive
E63	Barrel Dumping (10 dump stations)	1.05	Fugitive

Control Devices

There are no control devices associated with this emission unit.

Allowable Emissions:

Regulated Air Pollutant	Standard/Limit
Volatile Organic Compounds	See Additional Condition S1.a.

Additional Conditions

S1. Standards

[Regulation 2.16, section 4.1.1]

a. Volatile Organic Compounds

There are no applicable standards for this pollutant. However, the owner or operator must provide a determination of VOC emissions from each of the emission points that is a part of this emission unit.

[Regulation 1.05, section 4.1.2]

S2. Monitoring and Recordkeeping

[Regulation 2.16, sections 4.1.9.1.2 and 4.1.9.2]

The owner or operator shall conduct regular monitoring as described below and keep logs demonstrating compliance with these monitoring requirements. All records shall be maintained for a period of five years from the date of creation.

a. Volatile Organic Compounds

The owner or operator shall keep records of the monthly average barrel inventory in the warehouses. From this information, the owner or operator must calculate

the monthly and rolling twelve-month VOC emissions, using an emission factor of 10.5 lb_{VOC} per barrel per year or other emission factor subsequently determined and approved by the District. (Comment 1)

S3. Reporting

[Regulation 2.16, section 4.1.9.3]

a. Volatile Organic Compounds

There are no regular compliance monitoring reports required for this emission unit.

Comments

1. Brown Forman Distillery submitted a Regulation 1.05 compliance plan on 18 August 1993 which determined 10.5/(bbl•yr) to be the average VOC loss for barrels in storage. This emission factor also takes into account losses from filling and emptying the barrels.

Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed as compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

Off-Permit Documents

There are no off-permit documents associated with this Title V permit.

Alternative Operating Scenario

There is no Alternative Operating Scenario associated with this Title V permit.

Insignificant Activities

Insignificant activities identified in District Regulation 2.02, Section 2, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities approved as provided for in Regulation 2.16, Section 1.23.1.2 may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant activities identified by either regulation referenced in the foregoing paragraphs shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

The District has determined, pursuant to Regulation 2.16 section 4.1.9.4, that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed.

The Insignificant Activities table shown on the next page is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

The company shall submit an updated list of insignificant activities annually with the Title V Compliance Certification, pursuant to Regulation 2.16 section 4.3.5.3.6.

INSIGNIFICANT ACTIVITIES		
Description	Quantity	Basis
Portable gasoline storage	5	Regulation 2.02, section 2.3.23
Diesel storage, 1 @ 300 gallon, 1 @ 550 gallon. Turnover < 2/yr	2	Regulation 2.02, section 2.2.25
Waste oil storage, VP < 10 mm _{Hg} . 300 gallon	1	Regulation 2.02, section 2.3.9.2
Internal combustion engines	14	Regulation 2.02, section 2.2
Combustion sources < 10 MMBtu/hr (gas-fired water heaters)	7	Regulation 2.02, section 2.1.1
Brazing, soldering, and welding equipment	2	Regulation 2.02, section 2.3.4
Emergency relief vents	30	Regulation 2.02, section 2.3.10
Laboratory ventilation systems	2	Regulation 2.02, section 2.3.11
Benchtop grit blasting systems	2	Regulation 2.16, section 1.23.1.2
Cooling towers, 1 @ 2700 gal/min, max; 1 @ 1500 gal/min, max	2	Regulation 2.16, section 1.23.1.2
Cold cleaner parts washers	2	Regulation 2.16, section 1.23.1.2
Mash Cookers	3	Regulation 2.16, section 1.23.1.2
Malt Slurry Tub	6	Regulation 2.16, section 1.23.1.2
Yeast Cooker	2	Regulation 2.16, section 1.23.1.2
Beer heaters	2	Regulation 2.16, section 1.23.1.2
Stills	2	Regulation 2.16, section 1.23.1.2
Thumpers	2	Regulation 2.16, section 1.23.1.2
Condensers	2	Regulation 2.16, section 1.23.1.2
Product tank	1	Regulation 2.16, section 1.23.1.2
Dona tub - 26 gal (yeast growth)	1	Regulation 2.16, section 1.23.1.2
Dona tub - 300 gal each	2	Regulation 2.16, section 1.23.1.2
Yeast tubs - 1500 gal each	8	Regulation 2.16, section 1.23.1.2
Barrel marker (rolled ink printer)	1	Regulation 2.16, section 1.23.1.2
Setback screens	2	Regulation 2.16, section 1.23.1.2
Thick stillage tank	1	Regulation 2.16, section 1.23.1.2
Drag screens	2	Regulation 2.16, section 1.23.1.2
Thick stillage presses (roller presses)	2	Regulation 2.16, section 1.23.1.2
Setback tank	1	Regulation 2.16, section 1.23.1.2
Overflow tank	1	Regulation 2.16, section 1.23.1.2
Slop storage tanks	3	Regulation 2.16, section 1.23.1.2
Multi-effect evaporators and finisher	4	Regulation 2.16, section 1.23.1.2
Syrup holding tanks	2	Regulation 2.16, section 1.23.1.2
Case coder (ink jet printer)	1	Regulation 2.16, section 1.23.1.2
Citric Acid storage tank (5800 gal)	1	Regulation 2.16, section 1.23.1.2
HFCS Storage tank	1	Regulation 2.16, section 1.23.1.2
Sweco filter with 120 gallon surge tank and 400 gallon process tank	1	Regulation 2.16, section 1.23.1.2
Treated water storage tanks (2 tanks in the Distillery and 1 tank in Warehouse B, of 4000 gallons capacity each.)	3	Regulation 2.16, section 1.23.1.2
Bulk CO ₂ tank (outside)	1	Regulation 2.16, section 1.23.1.2